Summary of Major Changes - SOM01.X (5/7/04) to SOM01.0 (10/8/04)

This document is an overview of the major changes (additions and deletions) made to the Contract Laboratory Program Analytical Methods for Organics Analysis, SOM01.0. This document is intended to provide a high level summary of major changes between the Draft SOM01.X (5/7/04) and SOM01.0 (10/8/04). This document is not intended to summarize all changes to the document, but rather only the high level technical edits. It is recommended that the SOW is reviewed in its entirety.

General Changes

There were no general changes.

Exhibit A

There were no major changes to Exhibit A.

Exhibit B

There were no major changes to Exhibit B.

Exhibit C

Volatiles

1. The medium-level soil CRQLs for volatiles analysis has been lowered from 500 to 250 µg/kg for non-ketones, 1000 to 500 µg/kg for ketones, and 12500 to 5000 µg/kg for 1,4-dioxane. This is intended to decrease the gap between low-level and medium-level soil analysis.

Semivolatiles

There were no major changes to this Section of Exhibit C.

Pesticides

There were no major changes to this Section of Exhibit C.

Aroclors

There were no major changes to this Section of Exhibit C.

Exhibit D

Analytical Method for the Analysis of Trace Concentrations of Volatile Organic Compounds

1. The minimum acceptable RRF for 1,4-dioxane and 1,4-dioxane-d_8 in Trace Volatile analysis has been lowered from 0.010 to 0.0050 due to concerns that 0.010 could not be achieved by many of the CLP laboratories.

2. The calibration standard concentrations for 1,4-dioxane have been changed:

	Old	New
Initial Calibration (Trace Volatiles)	25, 50, 250, 500, 1000 µg/L	20, 40, 250, 400, 800 µg/L
Initial Calibration [Trace Volatiles - Selected Ion Monitoring (SIM)]	2.0, 4.0, 20, 40, 80 µg/L	2.0, 4.0, 25, 40, 80 µg/L
Continuing Calibration (Trace Volatiles - SIM)	20 µg/L	25 µg/L

3. Matrix Spiking solutions may be prepared monthly instead of weekly, or sooner if the solution has degraded or evaporated.

Analytical Method for the Analysis of Low/Medium Concentrations of Volatile Organic Compounds

1. Analysis of unpreserved, unfrozen soil/sediment samples for volatiles analysis must be completed within 24 hours of Validated Time of Sample Receipt (VTSR).

2. For Low/Medium Volatile soil samples received in pre-prepared closed-system purge-and-trap sample vials or pre-weighed glass vials that are to be stored at -7 °C, ensure that the samples are placed on their side prior to being frozen.

3. For water samples to be analyzed by the Low/Medium Volatile method, a total of two vials per field sample is the recommended amount the laboratory should receive.

4. The minimum acceptable Relative Response Factor (RRF) for 1,4-dioxane and 1,4-dioxane-d_8 in Low/Medium Volatile analysis has been lowered from 0.010 to 0.0050 due to concerns that 0.010 could not be achieved by many of the CLP laboratories.

5. Low-level soil dilutions will no longer be permitted since this procedure is very problematic and could lead to loss of analytes. In cases where an analyte exceeds the calibration range for a soil

sample prepared by the low-level procedure, the soil sample must be prepared and analyzed by the medium-level procedure.

6. Matrix Spiking solutions may be prepared monthly instead of weekly, or sooner if the solution has degraded or evaporated.

Analytical Method for the Analysis of Semivolatile Organic Compounds

1. For Semivolatile analysis, the recommended Pressurized Fluid Extraction Device is the ASE-300, which allows for the use of 100 mL extraction cells.

2. For Semivolatile SIM analyses; if a Matrix Spike/Matrix Spike Duplicate (MS/MSD) is requested, the laboratory has the option of using the matrix spiking solution in Section 7.2.3.2.1 or preparing a matrix spiking solution containing only acenaphthene, pyrene, and pentachlorophenol in methanol (see Section 12.2.3 for appropriate concentrations).

3. Matrix Spiking solutions may be prepared monthly instead of weekly, or sooner if the solution has degraded or evaporated.

Analytical Method for the Analysis of Pesticides

1. For Pesticides analysis, the recommended Pressurized Fluid Extraction Device is the ASE-300, which allows for the use of 100 mL extraction cells.

2. For convenience in purchasing standards, the concentration of the surrogate, tetrachloro-m-xylene (TCX) in the Resolution Check Mixture for Pesticides analysis will be lowered from 10 ng/mL to 5 ng/mL.

3. The Laboratory Control Sample (LCS) concentrations for Pesticide analysis have been lowered from around the mid-point of the calibration range to the low-point of the calibration range due to the request of several Regions.

4. Matrix Spiking solutions may be prepared monthly instead of weekly, or sooner if the solution has degraded or evaporated.

Analytical Method for the Analysis of Aroclors

1. For Aroclors analysis, the recommended Pressurized Fluid Extraction Device is the ASE-300, which allows for the use of 100 mL extraction cells.

2. More than 5 peaks may be used for Aroclor identification provided these additional peaks have been identified and quantified in the initial and continuing calibrations.

3. The LCS concentrations for Aroclor analysis have been lowered from around the mid-point of the calibration range to the low-point of the calibration range due to the request of several Regions.

4. Matrix Spiking solutions may be prepared monthly instead of weekly, or sooner if the solution has degraded or evaporated.

Exhibit E

There were no major changes to this Exhibit.

Exhibit F

There were no major changes to this Exhibit.

Exhibit G

There were no major changes to this Exhibit.

Exhibit H

1. The element "OriginalLabAnalysisID" was added to the Analysis node in the DTD.

2. The requirements for five elements ("AmountAddedUnits", "AnalyzedAmount", "AnalyzedAmountUnits", "FinalAmountUnits", and "InitialAmountUnits") were clarified.

3. The element "ClientID" was added to the SamplePlusMethod node.

4. The valid value "Freeze" was added to element "Preservative".

5. The valid value "Instrument_Performance" was added to element AnalyteType for tune compounds.

6. The element "ClientInstrumentQCType" is now required to be populated under pesticide calibration standards.

7. The laboratory shall now submit its electronic deliverables in compressed format (.zip).

Appendix A

There were no major changes to the Appendix.